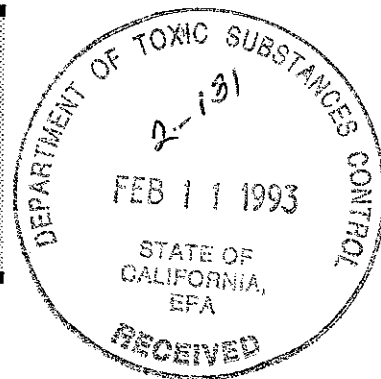




*Environmental Solutions through Technology*

TRC Environmental Corporation  
1201 North McDowell Boulevard  
Petaluma, CA 94954  
☎ (707) 769-5250 Fax (707) 762-3614

**REMEDIAL ACTION REPORT**  
**Mercury and Cadmium Containing**  
**Sediments In Catch Basins 2 and 4.**  
**Quicksilver Products, Inc.**  
**200 Valley Drive, Suite #1**  
**Brisbane, California**



Prepared for:

**QUICKSILVER PRODUCTS, INCORPORATED**  
200 Valley Drive, Suite 1  
Brisbane, California 94005  
415-468-2000

Submitted by:

**TRC ENVIRONMENTAL CORPORATION**  
1201 North McDowell Boulevard  
Petaluma, California 94954

February 9, 1993

**TRC Project Number 13083-N110**

*Mohammad Bazargani*  
Prepared By: **Mohammad R. Bazargani**  
Project Engineer

*Joseph P. Como*  
**Joseph P. Como, P.E.**  
Principal Engineer

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REMEDIAL ACTION REPORT  
QUICKSILVER PRODUCTS, INC.**

**TRC Project Number: 13083-N110**

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**ILLUSTRATIONS**

**Figure 1. Site Map**

**Figure 2. Site Vicinity Map**

**APPENDICES**

**Appendix A: Paradigm Environmental Health and Safety Certificates**

**Appendix B: Hazardous Waste Manifest and Laboratory Results**

**DISTRIBUTION**

## 1.0 INTRODUCTION

TRC Environmental Corporation (TRC) has prepared this Remedial Action Report on behalf of Quicksilver Products, Inc. located at 200 Valley Drive, Suite 1, Brisbane, California (Figure 1). This report is a summary of the remedial actions performed to meet the requirements of the Imminent and Substantial Endangerment Determination and Order, Docket No. I/SE 92/93-006, (the Order) dated August 21, 1992.

The Department issued the Order to Mr. Ritchey Vaughn and the Quicksilver Products Inc. on August 21, 1992. TRC prepared a Remedial Action Workplan dated September 18, 1992. This Workplan was approved by the Department and the subsequent remedial actions were undertaken by TRC and its Subcontractor, Paradigm Environmental.

Under paragraph 16.6 of the Order, within 90 days of the effective date of the Order and quarterly thereafter, the Responsible Parties shall submit a Quarterly Summary Report of activities under the provisions of this Order. Since the mercury and cadmium containing sediments have been abated at Catch Basins 2 and 4 (Figure 2), this Summary Report will meet the requirements of the Order and no further quarterly reporting will be necessary.

## **2.0 REMEDIAL ACTION PLAN**

### **2.1 Project Coordinator**

Project Coordinator for the Workplan and the Cleanup Action is as follows:

Mr. Joseph P. Como, P.E.  
TRC Environmental Corporation  
1201 N. McDowell Blvd.  
Petaluma, Ca 94954  
Telephone: (707) 769-5250

### **2.2 Remedial Action Schedule And Personnel**

The removal of the mercury and cadmium contaminated sediments was performed on Saturday, November 21, 1992. Paradigm Environmental conducted the cleanup operations under supervision of TRC Project Engineer, Mohammad R. Bazargani. Copies of Health and Safety training certificates for Paradigm and a copy of the bill to TRC for cleanup of the site is enclosed in Appendix A.

Mr. Thomas Tse, Waste Management Engineer from the Site Mitigation Branch was representing the Department at the site. Also present were Mr. David Jensen from the Surveillance and Enforcement Branch of the Department and Mr. Mark Prior of Quicksilver.

### **2.3 Remedial Action Procedure**

#### **2.3.1 Equipment**

The following equipment were used for removal of the sediment from the catch basins 2 and 4. Equipment specifications are identified in Appendix B of the Remedial Action Workplan dated September 18, 1992.

- Perimeter control equipment including warning tape, signs
- Level-C protective equipment as identified in Appendix A
- Mercury vacuum systems
- Dust pans
- Jerome 411 Gold Film Mercury Vapor Analyzer
- 55-gallon waste drums
- Buckets
- 12" mandrill

### 2.3.2 Work Procedure

Prior to startup of the cleanup procedure, foot traffic through the site was controlled through establishment of the exclusion zone around catch basins 2 and 4 and a contamination reduction zone. The ground surface in the exclusion zone was covered by a 6 mil. low density polyethylene liner. The 55-gallon drum was placed on top of the liner.

The catch basins contained approximately two to three inches of sediments contaminated with mercury and cadmium. The sediments were removed by utilizing small dust pans.

$$.14 \text{ g/d}^3 = 3.5 \text{ CA ft.}$$

The following procedure was followed in removal of sediments from the catch basins:

1. The storm drainage pipes leading to and from the catch basins was observed for presence of inflow of water. Because water was not observed in any of the drains leading to and away from the catch basins, it was not necessary to block the drainage pipes as called for within 2.3.2 of the Remedial Action Plan.
2. The sediments in the catch basins were scraped and removed using a dust pan. These sediments were placed in an appropriately labeled 55-gallon drum.
3. Once the sediments were removed, the catch basin floor and walls were vacuumed using the mercury vacuum system.
4. The surface of the cleanup area were checked using a mercury sniffer.
5. The areas that indicated detectable levels of mercury were brushed and vacuumed using the mercury vacuum system.
6. Steps 4 and 5 were repeated until mercury concentrations were below the background levels.
7. Sediments within the pipe between Catch Basins 2 and 4 were removed by utilizing a 12" mandrill to move any sediments within the pipe towards Catch Basin 4.

### **3.0 WASTE DISPOSAL**

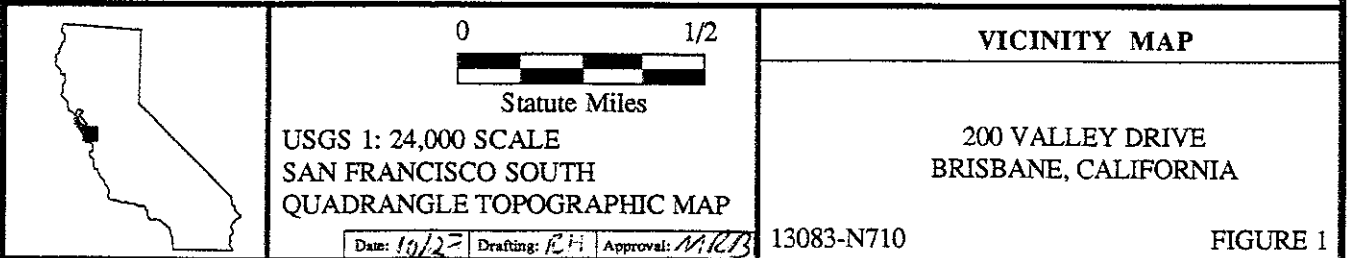
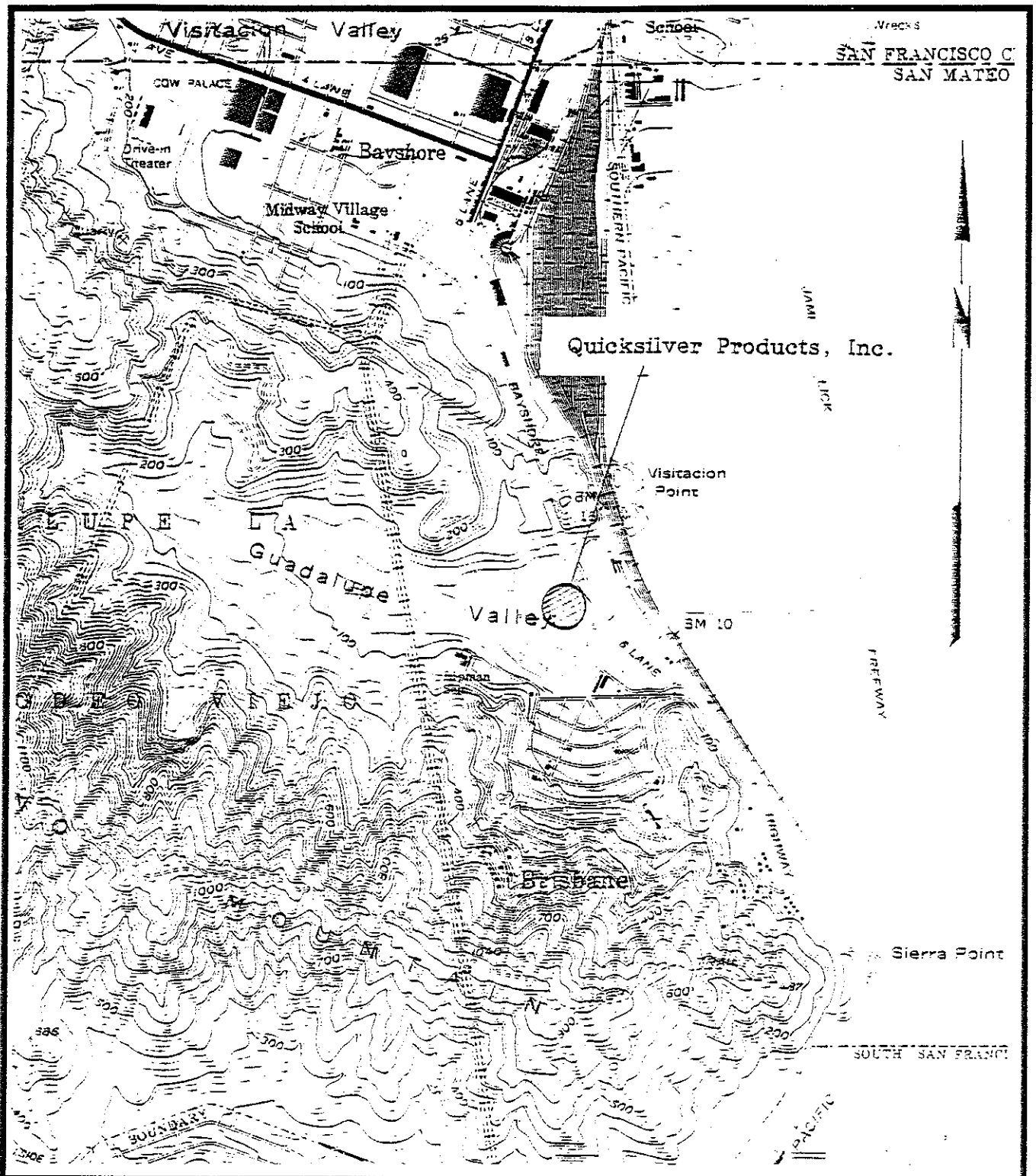
The waste contained in the drums was sampled and analyzed for mercury (EPA 7471). Results of the analysis indicated 44 mg/kg of mercury. The drum was manifested with other waste and was disposed at Envirosafe Services of Idaho, Inc. A copy of the laboratory results and the manifest are enclosed in Appendix B.

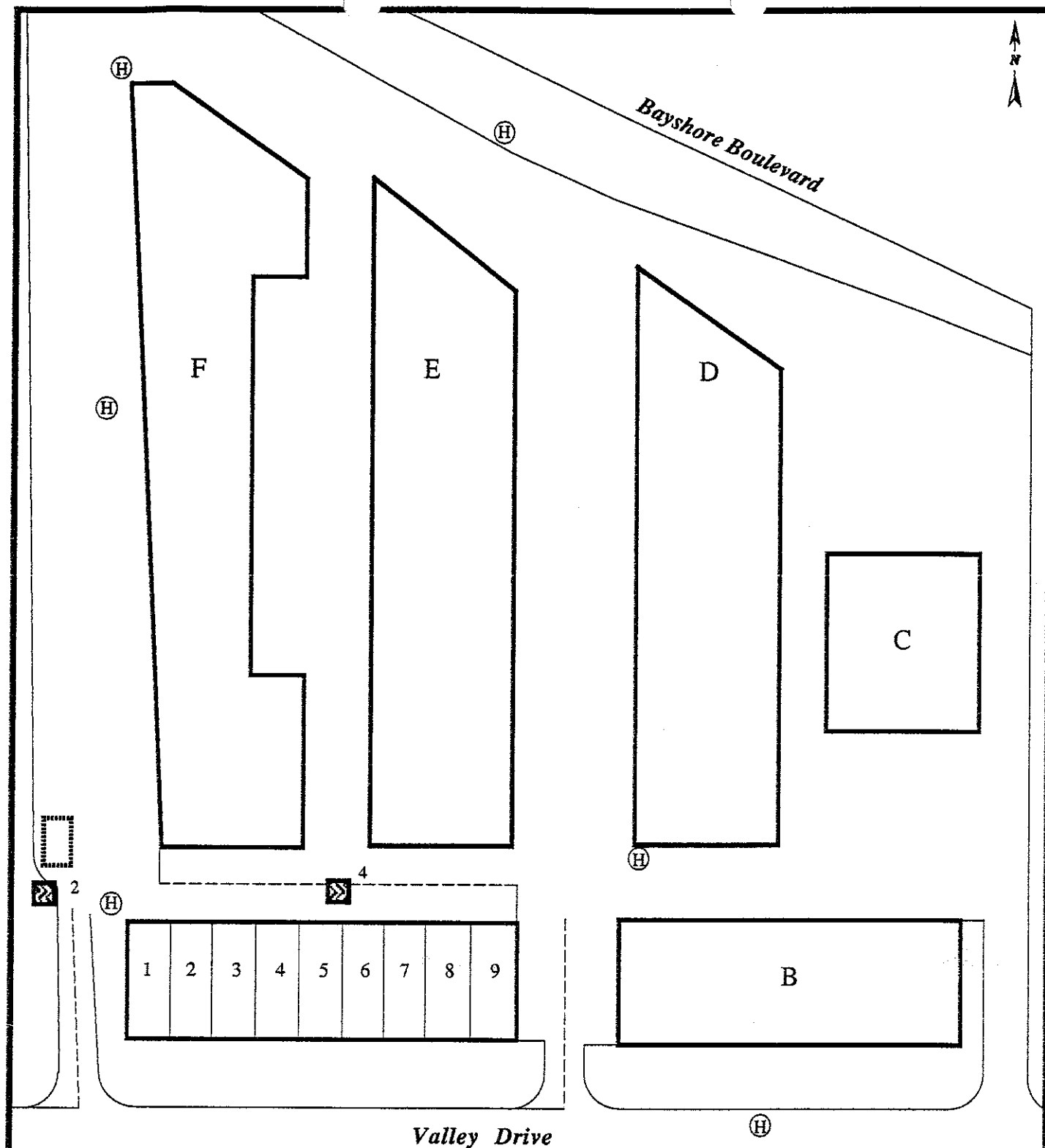
#### **4.0 MERCURY SNIFFER SAMPLING RESULTS**

To confirm that the removal procedure has been successful, the Jerome 411 mercury vapor analyzer was placed at the bottom of the catch basin and inside each of the pipes leading to and away from each catch basin. The background levels were determined to be between 0.001 mg/m<sup>3</sup> and 0.003 mg/m<sup>3</sup>. The readings from the mercury sniffer at four corners of Catch Basins 2 and 4 and pipes leading to and away from each catch basin indicated near background levels.

## ILLUSTRATIONS












# EXPLANATION

# SITE MAP

-  Chain Link Fence
-  Buildings
-  Fire Hydrant
-  Catch Basin

0 80  
  
 Approximate Scale  
 (feet)

200 VALLEY DRIVE  
 BRISBANE, CALIFORNIA

Date: 1/27 Drafting: R.H. Approval: M.C.R.

13083-N710

FIGURE 2

**TRC**

**APPENDIX A**  
**PARADIGM ENVIRONMENTAL HEALTH AND SAFETY CERTIFICATES**

# PARADIGM Environmental

An Envirocon Company

14444 Wicks Blvd.

San Leandro, California 94577

(510) 352-9203

Lic. #621048

Fed I.D. #81-044-8332


INVOICE NO. 25232-1

INVOICE DATE 11/30/92

ACCOUNT NO. 206

SOLD TO: TRC Environmental Consultants, Inc.  
1201 North McDowell Blvd.  
Petaluma, CA 94954  
Attn: Accounts Payable

SHIP TO:

PURCHASE ORDER NO.	WORK ORDER NO.	SALES REPRESENTATIVE	TERMS
NCO-31		 Michael Warren ✓	Net 30
QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	To invoice for cleanup of Mercury/Cadmium at the Quicksilver Products, Inc. facility in Brisbane, CA.  Contract Amount \$3,120.00  Project @ 100% Complete		\$3,120.00
		TOTAL AMOUNT	\$3,120.00
COMMENTS			
Remit To: Paradigm Environmental c/o Envirocon, Inc. P.O. Box 8243 Missoula, Montana 59807 Attn: Accounts Receivable			

**PARADIGM  
ENVIRONMENTAL**

14444 Wicks Blvd.  
San Leandro, CA 94577

**CONSTRUCTION DAILY SUMMARY**

JOB NO.: 25-232		DATE: 11/21/92 <input checked="" type="checkbox"/> DAY <input type="checkbox"/> NIGHT
OWNER: QUICKSILVER PRODUCTS	JOB NAME: QUICK SILVER	
P.O. NO.: NCO-31	ADDRESS: 200 VALLEY DR BRISBANE, CA 94005	

LOCATION AND DESCRIPTION OF WORK PERFORMED:

ARRIVED AT JOBSITE @ 8:20A. MOHAMMAD BAZARGANI DIRECTED WORK FOR CLEAN-UP OF 2 STORM DRAIN CATCH BASINS AND 140' OF 12" LINE FOR MERCURY/CADMIUM REMEDIATION.

SET UP EZ WITH CAUTION TAPE AS DIRECTED. SET-UP CR3 USING 3 SHOVEL PANS WITH 5 GAL WASH BUCKETS SET-UP →

LIST ANY AND ALL PROBLEMS IN AREA:

→ TYPE C AIR PANEL FED FROM 6 PACK. SCOTT-PAR ON STANDBY. SCOOPED ALL LOOSE DEBRIS INTO 6 MIL POLY BAGS, BRUSHED MAIN HOPE CATCH BASIN AND MERCURY VACUUMED ALL LOOSE DEBRIS. WET WIPED BASIN WITH H<sub>2</sub>O<sub>2</sub>, VERIFIED DECON WITH THERMOMETER FOR MERCURY VAPOR.

MAJOR OR MINOR EVENTS WHICH OCCURRED TODAY (LEAKS, ACCIDENTS, ETC.):

LENGTH OF DRAIN LINE WAS MISJUDGED - WE HAD TO PURCHASE A 200' FISH STEEL AND AN ADDITIONAL 100' ROP.

LIST ANY VISITS BY REGULATORY AGENCIES:

CA DHS

LIST ANY VISITS OR INSPECTIONS (HYGIENIST, COMPANY OFFICIAL, ETC.):

MOHAMMAD - TRC

DID YOU LOAD OUT TODAY? ☒ YES ☐ NO 1-55 gal 1714 DRUM - QUICKSILVER WILL MANIFEST & TRANSPORT

MANIFEST # \_\_\_\_\_ TOTAL YARDS \_\_\_\_\_

# Paradigm Employee Work Site Entry/Exit Log

## PARADIGM ENVIRONMENTAL

14444 Wicks Blvd.  
San Leandro, CA 94577

Project: QUECK SECURA

Job No.: 25-232

Foreman: RAY BERRIL

Signature: [Signature]

Date: 11/21/92

EMPLOYEE	PAPR #	Full (✓)	1/2 (✓)	Time In	Time Out	Time In	Time Out	Employee Initials
1. RAY BERRIL	322	✓		10:30	12:15	1:30	4:40	RB
2. JAVIER PINOYERS	384	✓		10:30	12:15	1:30	4:40	JP
3.				:	:	:	:	
4.				:	:	:	:	
5.				:	:	:	:	
6.				:	:	:	:	
7.				:	:	:	:	
8.				:	:	:	:	
9.				:	:	:	:	
10.				:	:	:	:	
11.				:	:	:	:	
12.				:	:	:	:	
13.				:	:	:	:	
14.				:	:	:	:	
15.				:	:	:	:	
16.				:	:	:	:	
17.				:	:	:	:	
18.				:	:	:	:	
19.				:	:	:	:	
20.				:	:	:	:	

10/92 PS

COMMENTS

FORENSIC ANALYTICAL SPECIALTIES

FAX TRANSMISSION SUMMARY

Atomic Absorption Analysis  
of Air Filters by MHS Analysis

Company: Paradigm Environmental

Date: 11-<sup>30</sup>~~28~~-1992

Attn: Michael Warren

Time: 7:20

Job ID / Site: 25-232

Report #: 187517

---

Client #	Elem	Result
11/21/92 BreerHg		0.355 ug
11/21/92 PnionHg		0.780 ug

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

These results are PRELIMINARY. Hard copy will follow in the mail.

FAX TRANSMITTED TO :352-7602

Forensic Analytical FAX: (510) 887-4218  
Forensic Analytical Voice: (510) 887-8828

Supervisor Approval

DC

## Certificate of Completion

This is to certify that

**Raymond Breer**

has successfully completed the

### 8-HOUR REFRESHER HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE TRAINING

In compliance with the  
DEPARTMENT OF LABOR  
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
(OSHA) 29 CFR 1910.120

Awarded this 9th day of May, 19 92

*Steven D. Edwards*

Director of Training  
Certificate #3025 - 024

**ENVIROCON, INC.** 



## ***Certificate of Completion***

This is to certify that

**Juan Pinones**

has successfully completed the

### **40-HOUR HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE TRAINING**

In compliance with the  
**DEPARTMENT OF LABOR  
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
(OSHA) 29 CFR 1910.120**

Awarded this 9th day of May, 19 92

*Steven D. Edwards*

**Director of Training  
Certificate #3025 - 018**

**ENVIROCON, INC.**





## PARADIGM Environmental

14444 Wicks Blvd.  
San Leandro, California 94577

(510) 352-9203  
Fax: (510) 352-7602

### QUALITATIVE FIT TESTING AND ISSUANCE OF RESPIRATOR

Name of Person Tested: JUAN PINONES

Make, Model, and Size of Respirator: NORTH MEDIUM

Type of Cartridge:

☒ HEPA ( ) Charcoal Filter ( ) Combination ( ) Other \_\_\_\_\_

Description of Test:

1. Respirator is donned and straps adjusted.
2. Visual check is made to ensure tight fit around facial contours.
3. Exhalation/inhalation and simulated mouth movement tests are performed
4. Irritant smoke is used to check fit. Proper fit is obtained if subject is not made to cough by smoke plume.

I acknowledge that I have been issued the above type of respirator after successfully completing the qualitative fit testing. I agree to maintain and field check the respirator as instructed. Upon my termination of employment, I further agree to return the respirator in good condition, excluding normal wear and tear. In addition, should I lose the respirator I agree to pay for the replacement respirator.

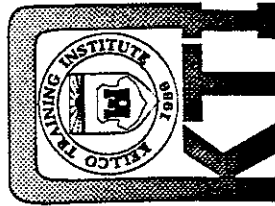
Person Tested: JUAN PINONES Date: 07-9-92

Test Operator: Ken Kellogg Date: 7/9/92

☐ original issuance ☐ temporary issuance

☒ 6-month reissuance ☐ lost respirator





ENVIRONMENTAL AND  
OCCUPATIONAL EDUCATION

## KELLCO TRAINING INSTITUTE INC.

44804 OSGOOD ROAD, FREMONT, CA 94539-6101  
(510) 770-8323

This is to certify that

JUAN PINONES MACIEL

Has attended and satisfactorily  
completed the requirements for the EPA accredited  
Asbestos Contractors'/Supervisors' Refresher Course  
in accordance with the  
Asbestos Hazard Emergency Response Act ( AHERA )

Course Date FEBRUARY 20, 1992

FEBRUARY 20, 1992

Exam Date

1992

Course Instructor

Certificate Number

This certificate is valid until: FEBRUARY 19, 1993

*Juelle Mc Gowan*

Program Director Kellco Training Institute



American Heart  
Association

Cardiopulmonary  
Resuscitation and  
Emergency  
Cardiac Care  
Provider

Raymond Breer

has successfully completed the national cognitive and  
skills examinations in accordance with the curriculum  
of the American Heart Association for

BLS Provider-C

11/14/92

Date of Issue

11/94

Recommended Renewal Date

Name of American  
Heart Association AHA ALAMEDA COUNTY  
Instructor's  
Name RICKY HURTADO  
Instructor's  
I.D. No. Creative Education Resources, Inc.  
Holder's  
Signature RCB

This recognition is subject to the provisions and limitations of applicable state statutes and  
licensing acts.

©1988, 1991 American Heart Association



American Heart  
Association

70-0002 (SA)  
4-92  
77 00 01

CREATIVE  
EDUCATION  
RESOURCES, INC.

CERTIFICATE of CONTINUING EDUCATION

This is to certify that  
Raymond Breer

has successfully completed 6 hours of instruction in  
Basic Life Support Provider

*Madeline Fessler*

BRN Provider No. 01948  
Creative Education Resources, Inc.  
3055 Alvarado Street, Suite 102  
San Leandro, CA 94577  
(510) 352-6264

1. THIS CERTIFICATE MUST BE RETAINED  
BY THE LICENSEE FOR A PERIOD OF FOUR  
(4) YEARS AFTER THE COURSE CONCLUDES.

November 14, 1992  
Date Completed

Ricky Hurtado  
Instructor



## KELLCO TRAINING INSTITUTE INC.

31387 Medallion Drive, Hayward, CA 94544  
(510) 429-5260

This is to certify that

RAYMOND BREER JR.

**Has attended and satisfactorily  
completed the requirements for the EPA accredited  
Asbestos Contractors'/Supervisors' Refresher Course  
in accordance with the  
Asbestos Hazard Emergency Response Act ( AHERA )**

Course Date MAY 15, 1992

MAY 15, 1992

Exam Date

5270

Certificate Number

This certificate is valid until: MAY 14, 1993

  
Course Instructor

  
Program Director Kellco Training Institute

**APPENDIX B**  
**HAZARDOUS WASTE MANIFEST AND LABORATORY RESULTS**



92473821  
IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address Quicksilver Products, Inc. 200 Valley Drive, Suite 1 Brisbane, CA. 94005		4. Generator's Phone (415) 469-2000		A. State Manifest Document Number 92473821	
5. Transporter 1 Company Name North State Environmental		6. US EPA ID Number C A D 9 9 9 5 4 7 7 7		B. State Generator's ID H A I D 1 8 1 1 1 1 1 1	
7. Transporter 2 Company Name North State Environmental		8. US EPA ID Number C A D 9 9 9 5 4 7 7 7		C. State Transporter's ID 301754	
9. Designated Facility Name and Site Address EnviroSafe Services of Idaho, Inc. 19.5mi NW of Grandview, ID 83624		10. US EPA ID Number I D D 9 7 7 1 1 1 4 6 5		D. Transporter's Phone (415) 548-2938	
				E. State Transporter's ID (415) 500-2330	
				F. Transporter's Phone (800) 274-1516	
				G. State Facility's ID I D D 9 7 7 1 1 1 4 6 5	
				H. Facility's Phone	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste Number State EPA/Other
a. RO=11b. HAZARDOUS WASTE SOLID, NOS (D069), 9, NAW77, PCIII (mercury)		10 C F	10	Y	191 D069
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other
16. Additional Descriptions for Materials Listed Above 19.5 mi NW of Grandview, ID (19.5 mi NW of Grandview, ID) 19.5 mi NW of Grandview, ID (19.5 mi NW of Grandview, ID) 19.5 mi NW of Grandview, ID (19.5 mi NW of Grandview, ID)		K. Handling Codes for Wastes Listed Above a. b. c. d.			
15. Special Handling Instructions and Additional Information Emergency Contact: Ritchey Vaughn (415) 469-2000. Use gloves, goggles, and respirator if boxes are opened.					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name MARK S. PRIOR		Signature [Signature]		Month Day Year 01/18/93	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name L. Bousway		Signature [Signature]		Month Day Year 01/18/93	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name Signature Month Day Year					

DO NOT WRITE BELOW THIS LINE.



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

DATE RECEIVED: 11/24/92

DATE REPORTED: 12/03/92

LABORATORY NUMBER: 109349

CLIENT: TRC ENVIRONMENTAL CONSULTANTS

PROJECT ID: 13083

LOCATION: QUICKSILVER

RESULTS: SEE ATTACHED

Tuesak. Morrison  
Reviewed by

Kelly OB  
Reviewed by

This report may be reproduced only in its entirety.



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109349  
CLIENT: TRC ENVIRONMENTAL CONSULTANTS  
PROJECT: 13083  
LOCATION: QUICKSILVER

DATE SAMPLED: 11/24/92  
DATE RECEIVED: 11/24/92  
DATE ANALYZED: 11/30/92  
DATE REPORTED: 12/03/92

=====

ANALYSIS: MERCURY  
ANALYSIS METHOD: EPA 7471

=====

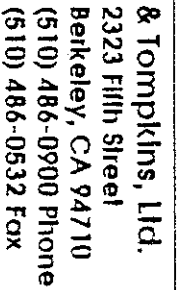
LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
109349-1	COMPOSITE 13083-S1 & 13083-S2	44	mg/Kg	6

QA/QC SUMMARY:

=====

RPD, %	<1
RECOVERY, %	99

=====



## Page 11

Report to: Mohammed

Company: TRC Env. Corp.

Telephone: 707-769-5250

Fax:

[illegible]

**DISTRIBUTION  
REMEDIAL ACTION REPORT  
QUICKSILVER PRODUCTS, INC.**

**TRC Project Number: 13083-N110**

**February 9, 1993**

2 Copies: California Environmental Protection Agency  
Department of Toxic Substances Control  
700 Heinz Avenue, Building F  
Berkeley, California 94710  
  
Attention: Thomas Tse

1 Copy: Jaffe, Trutanich, Scatena & Blum  
250 Montgomery Street, Suite 900  
San Francisco, California 94104  
  
Attention: Jim Jaffe

2 Copies: Quicksilver Products, Inc.  
200 Valley Drive, Suite #1  
Brisbane, California 94005  
  
Attention: Ritchey Vaughn

3 Copies: TRC Environmental Corporation  
1201 North McDowell Boulevard  
Petaluma, California 94954  
  
Attention: Project File  
Library Copy  
Extra

1 Copy: TRC Environmental Corporation  
5 Waterside Crossing  
Windsor, Connecticut 06095  
  
Attention: Mr. G. Hoffnagle, Records Retention